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Central National Technology Support Center

October 2005



A Message from the Director



The Central National Technology Support Center (CNTSC) has completed our first year of operations with 37 specialists currently on board. It is fair to say that Fiscal Year (FY) 2005 shaped up to be an exciting year for us. We are pleased that your requests for our assistance continue to increase. During FY 2005, we received 580 requests for assistance and completed 86 percent of those requests.

The CNTSC is a national center with national specialists on staff. These specialists continue to provide national leadership for a number of key science and technology areas.

You will see some of these areas highlighted in our report.

The key to our progress during FY 2005 was our ability to stay focused on our functions, which serve as the framework for decision making. The functions of the NTSCs are to:

1. Provide direct technical support to States and the Caribbean and Pacific Basin Areas;
2. Acquire/develop new science and technology;
3. Develop and maintain national technical standards, references, and related procedures; and
4. Build partnerships & collaborate to provide training.

We also established and met several important goals: refining our operations, improving customer service, raising our capacity to deliver quality technical support, and strengthening partnerships.

As exciting a year as FY 2005 was, we look forward to seeing what the future holds in FY 2006. We appreciate your support and look forward to working with each of you to meet the many science and technology challenges that face our agency.

RONALD C. WILLIAMS
Director

Team Highlights

Central National Technology Support Center
Percent of Total Requests by Team
FY 2005

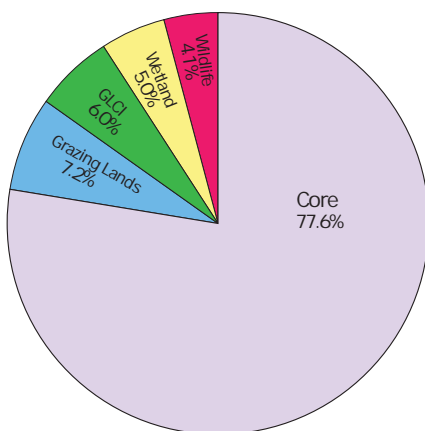


Figure 1.1

The CNTSC received 580 requests for assistance in our four primary functions during FY 2005:

- Direct Technical Assistance
- Technology Transfer & Training
- Technology Development
- National Technical Standards

See Figure 1.2 at right.

These requests were addressed by the appropriate team, as reflected in Figure 1.1 at left.

Central National Technology Support Center
Total Number of Requests
Received by Function
FY 2005

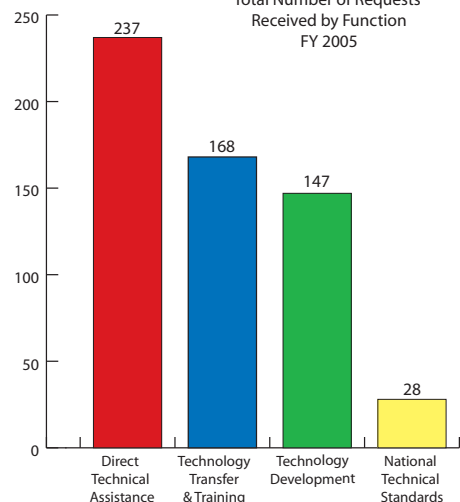


Figure 1.2

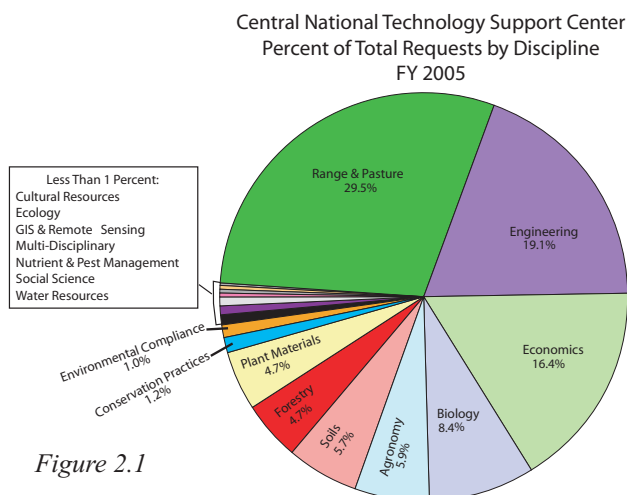


Figure 2.1

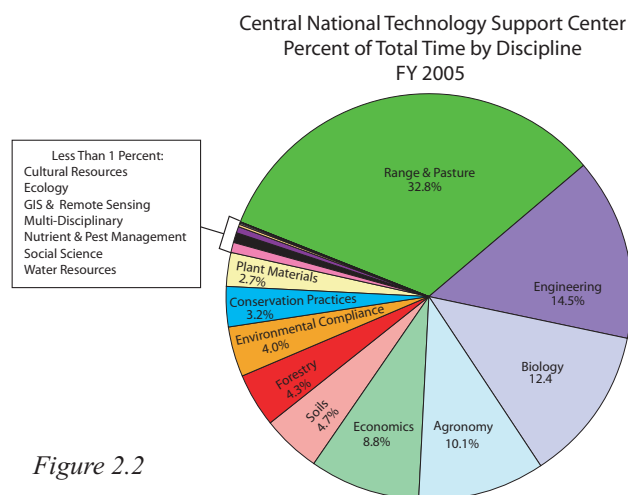


Figure 2.2

Core Team

The CNTSC Core Team provided assistance in developing National Instruction for Guidance in Management of Soils Information in Section II of the electronic Field Office Technical Guide (e-FOTG). The Section II guide will provide clear statements on official soils information, location of information, and dates soil information was approved for official use, and ensure that customers accessing soil information in Section II of e-FOTG have access to all approved information.

Team members made presentations during several state and multi-state Comprehensive Nutrient Management Plan (CNMP) workshops.

The team led efforts to revise National Conservation Practice standards for Filler Strips and Irrigation System, Micro-irrigation.

In just five months, CNTSC staff assisted with the roll out of the first national training course on Fish and Wildlife Habitat, Conservation and Management in Chattanooga, TN. Over 25 units of instruction were organized and coordinated for the course, which focused on resource issues common to physiographic areas in AL, GA, NC, VA, and TN. Future courses, tailored to the needs of particular landscapes, will be offered in 2006.

In the agency's ongoing effort to improve air quality through conservation practices, CNTSC staff helped developed a plan utilizing trees to control dust and odor dispersion. This effort will positively impact many poultry production areas as encroaching development conflicts with their normal operations. This plan also used CAN-VIS Technology developed by the National Agroforestry Center.

In addition to assisting with coordination of the first International Salinity Forum, CNTSC staff helped pilot the new "Salinity Management for Soil & Water,, training program.



CNTSC engineers conducted training to provide the latest hydraulics technology to engineers and technicians. These included training in Advanced HEC-RAS, Basic SITES, EFH2 & WinTR55.

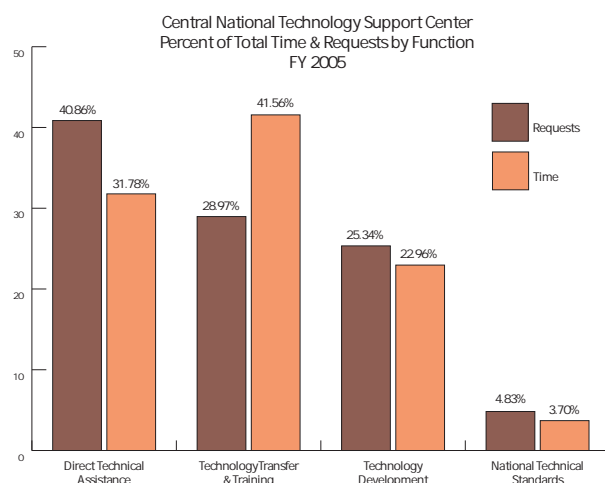


Figure 2.3

Wildlife Team

The Wildlife Team developed course materials for the fish and wildlife component of the NRCS Boot Camp for new employees, supported by a one day field trip focusing on fish and wildlife assessment techniques.

The team led a workgroup of State and Center biologists that developed national guidance for standard fish and wildlife assessment elements to improve consistency among the CSP watersheds and presented that guidance in regional CSP training.

The Wildlife Team sponsored three Sage Grouse Workshops for NRCS employees and partners providing direct conservation assistance to landowners within the geographic range of the sage grouse. The workshops successfully brought together 256 people representing local groups, private landowners, and conservationists to share knowledge, experience, and data on sage grouse conservation.



The team sponsored the National Environmental Policy Meeting and Wildlife Workshop, which showcased Wildlife Team products to aid NRCS Biologists and Environmental Specialists to meet increasing Farm Bill program demands. A field trip to Wetland Reserve Program easements in the California Central Valley provided participants a first-hand look at the latest wetland restoration technology.

In addition, the Wildlife Team has developed nine new Fish and Wildlife Habitat Management Leaflets:

Swift Fox	Wading Birds	Native Pollinators
Mule Deer	Greater Prairie Chicken	Cropped Wetlands and Wildlife
Mourning Dove	Farm Pond Ecosystems	Native Warm-season Grasses and Wildlife

Three new ECS – Biology Technical Notes have been forwarded to NHQ to be issued as directives:

Migratory Bird Responses to Grazing;

Creating Early Successional Habitat through Federal Farm Programs: An Objective Driven Approach with Case Studies; and

Aquatic Condition Response to Buffer Establishment on Northern Virginia Stream.

Wetland Team

The Wetland Team led 15 sessions in wetland-related courses during the first year of operation. These included Wetland Restoration and Enhancement, Hydric Soils, Wetland Plant Identification, Hydrology Tools, and Wetland Identification and Delineation.



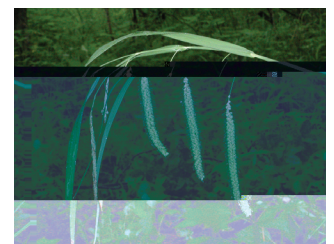
The Wetland Team worked jointly with the National Plant Data Center (NPDC) and produced an electronic wetland plant identification tool titled MARSH in SLIKS (Stinger's Lightweight Interactive Key Software). This polyclave identification key contains information to allow users to accurately identify approximately 2500 wetland plants to the species, including the grasses, sedges, rushes, composites, woody plants, and others.



The Wetland Team, with the NPDC and the Fish and Wildlife Service, developed a database containing the taxonomic and synonymy changes to the approximately 8000 plant species. This is part of a larger project to revise and update the National Wetland Plant List in 2006 for use in making wetland determinations for the Farm Bill's Swampbuster provisions and Section 404 of the Clean Water Act.

The team has developed, revised, or reviewed the following technical materials:

- National Technical Standards: Wetland Restoration, Wetland Enhancement, and Wetland Creation.
- Published *Wetland Loss & Isolation* with the National Wildlife Habitat Council.
- Technical Notes published: *Guidelines for Assessing Disturbed Soils in Urban Wet Areas*, *Evaluating Seasonal Water Levels for Wetland Biological Response*.



Grazing Lands Team

The Grazing Lands Team worked closely with the Web Soil Survey Design Team to link the Ecological Site Information System (ESIS) with Web Soil Survey. Integration of this database allows users to obtain plant community information associated with each ecological site through a geospatial interface.



A Memorandum of Understanding has been signed by the Bureau of Land Management, Forest Service, and Natural Resources Conservation Service to develop an interagency ecological site manual that will be utilized by the agencies. The team is providing technical leadership to develop the manual.



Revision One of the National Range and Pasture Handbook was released containing current concepts and format for developing ecological site descriptions and forage suitability group descriptions. The Grazing Lands Team is participating with a group to review carbon modeling efforts and needs within NRCS. The Team is also coordinating with the Soil Quality Team to develop a Rangeland Soil Quality training course.

The ARS and NRCS have organized a team of scientists to develop a new Rangeland Hydrology and Erosion Model (RHEM). Significant work has been done to update and enhance the computer code for hydrology and erosion prediction on rangeland. A future RHEM will enable NRCS grazing land specialists to 1) develop hydrology and erosion assessments for new ecological site development, 2) predict the outcome of conservation practices, 3) quantify hydrology and erosion parameters for the rangeland health model, and 4) use the model in conservation planning and programs such as CSP.



In the third year of the new rangeland NRI, the statistical reliability is currently at the National level. With ongoing sampling in subsequent years, a State level accuracy may be available. Currently, the Journal of Soil and Water Conservation has accepted a feature article on the Rangeland NRI submitted by the team.

Central National Technology Support Center

Percent of Total Requests by Customer
FY 2005

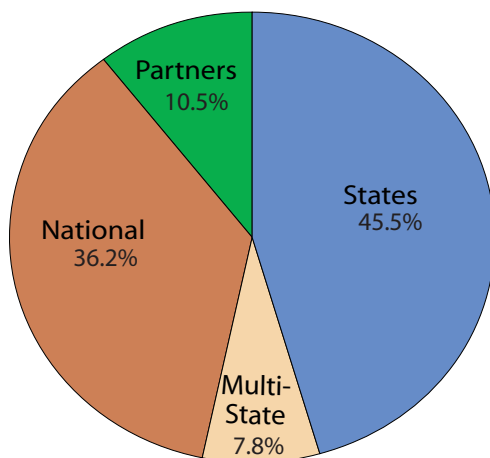


Figure 4.1

Percent of Total Time Spent by Customer
FY 2005

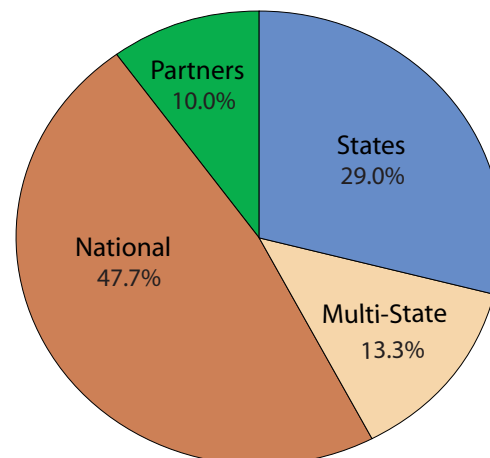


Figure 4.2